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(71) Applicant: **FUJITSU LIMITED**
Kawasaki-shi, Kanagawa 211-8588 (JP)

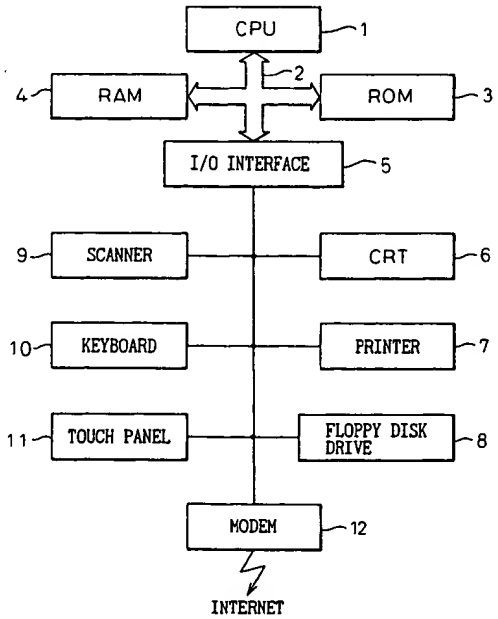
(72) Inventors:
- **Maruyama, Tetsuya,**
  c/o Fujitsu Oasys Dev.Co., Ltd.
  Nagaoka-shi, Niigata 940-0066 (JP)
- **Miyagi, Naoko, c/o Fujitsu Limited**
  Kawasaki-shi, Kanagawa 211-8588 (JP)

(74) Representative: **Moutard, Pascal Jean et al**
Cabinet Beau de Loménie
158, rue de l'Université
F-75340 Paris Cedex 07 (FR)

(54) Method and apparatus for storing data, and recording medium therefor

(57) Provided are a method and apparatus having simplified operation for storing data according to which data, for example, images contained in a home page, are stored in a computer system, and a recording medium employed in the method and apparatus. The computer system stores images contained in a home page that is composed of character information and image information and that is displayed in a screen. Herein, a document describing the home page and written in a given language is read. Source files of storable images contained in the home page are retrieved from the document. Image information of the images is listed based on the retrieved source files. A desired image is selected from the listed image information. The selected image is then stored on a recording medium.

Fig. 1



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Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention relates to a method and apparatus for storing data, and a recording medium therefor.

2. Description of the Related Art

[0002] In recent years, it has become possible to exchange information in real time among computers that are located around the world and interconnected over the Internet. Home pages are known as a means for providing information over the Internet. A home page is composed of text (document) information and image information and are written mainly in hyper text markup language (HTML). The home page can be owned by individual computers connected over the Internet or other networks. It is required that documents or images can be extracted from home pages and utilized effectively in the form of a personal database.

[0003] Assume that a document (text information) contained in a given home page must be stored by operating a computer of a prior art. In this case, the leading position of the document, which must be stored, in the home page displayed on the display screen of the computer is pointed to by manipulating a mouse. With a mouse button held down, the mouse is dragged until the last position of the document to be stored is pointed to or the pointed position is shifted from the leading position to the last position. The mouse button is then released, whereby a range of the document that must be stored can be designated. The color of the background of the designated range of the document is changed to, for example, blue. The right mouse button is then clicked inside the range, and the Copy menu will appear. When Copy is clicked, the designated range of the document is temporarily buffered. If Affix in the Edit menu is then clicked, the designated range of the document in the home page is fetched from the buffer into a new document.

[0004] On the other hand, an image in a given home page may be required to be stored. In this case, the image in the home page displayed on the display screen of a computer, which must be stored, is pointed to by the mouse. When the right mouse button is clicked, the menu "Name and Store Image" appears. Thereafter, a storage place and a file name are entered and the Store button is clicked. The image in the home page can thus be stored.

[0005] However, according to the foregoing method of storing an image extracted from a home page in accordance with the prior art, the Name and Store Image menu may not appear. The Name and Store Image menu may not appear, though an image in a home page displayed on the display screen of a computer, which must be stored, is pointed to and then clicked using the mouse. In this case, the image clicked using the mouse cannot be stored. The method of storing an image extracted from a home page in accordance with the prior art has thus a problem. This is attributable to the fact that whether an image requested to be stored can be stored cannot be recognized until the image is pointed out and clicked using the mouse.

[0006] Moreover, the home page is displayed with text information and image information arranged in a screen according to a tag borne by an HTML document. For storing a plurality of items of image information contained in a home page, the mouse must be manipulated in order to point out the scattered items of image information.

SUMMARY OF THE INVENTION

[0007] Accordingly, an object of the present invention is to solve the foregoing problems and to provide a method and apparatus having simplified operation for storing data, to be employed in a computer system, and a recording medium used for the method and apparatus.

[0008] A method for storing desired data, in accordance with the present invention, which attempts to solve the problems is a method of storing desired data selected from data displayed in a screen. Specifically, data of a given kind is retrieved from the displayed data. The retrieved data is listed. Desired data is selected from the listed data. The selected data is then stored on a recording medium.

[0009] Owing to the above method, data that must be stored is listed and displayed in a screen. Thus, an operation required to store data on a recording medium can be simplified.

[0010] In the method for storing data of the present invention, the displayed data may be composed of character information and image information. The data of a given kind may be the image information.

[0011] In the method for storing data of the present invention, the displayed data may be displayed based on a document written in a given language. The data of a given kind may be detected from the contents of the document.

[0012] In the method for storing data of the present invention, the listing may be displayed according to a given sort.

[0013] In the method for storing data of the present invention, the displayed data may be a remote home page. The data of a given kind may be retrieved from a document written to display the home page.

[0014] In the method for storing data of the present invention, the displayed data may be recorded on a local recording medium. The data of a given kind may be retrieved from a document written to display the data recorded on the recording medium.

[0015] An apparatus for storing desired data, in ac-

cordance with the present invention, which attempts to solve the aforesaid problems is an apparatus for storing desired data retrieved from data displayed on a screen. The apparatus has a retrieving unit that retrieves data of a given kind from the displayed data, a listing unit that lists the detected data, and a storing unit that stores the selected data on a recording medium.

[0016] The apparatus may have another unit that selects desired data from the listed data.

[0017] In the apparatus for storing data of the present invention, the displayed data may be composed of character information and image information. The data of a given type may be the image information.

[0018] In the apparatus for storing data of the present invention, the displayed data may be displayed based on a document written in a given language. The data of a given kind may be detected from the contents of the document.

[0019] In the apparatus for storing data of the present invention, the listing may be displayed according to a given sort.

[0020] In the apparatus for storing data of the present invention, the displayed data may be a remote home page. The data of a given kind may be retrieved from a document written to display the home page.

[0021] In the apparatus for storing data of the present invention, the displayed data may be recorded on a local recording medium. The data of a given kind may be retrieved from a document written to display the data recorded on the recording medium.

[0022] A recording medium, in accordance with the present invention which attempts to solve the aforesaid problems, is a recording medium readable by a computer. Recorded on the recording medium is a program causing a computer to execute the steps of retrieving data of a given kind from data displayed in a screen, listing the detected data, selecting desired data from the listed data, and storing the selected data on the recording medium.

[0023] In the recording medium of the present invention, the program may cause the computer to execute another step of selecting desired data from the listed data.

[0024] In the recording medium of the present invention, the displayed data may be composed of character information and image information. The data of a given kind may be the image information.

[0025] In the recording medium of the present invention, the displayed data may be displayed based on a document written in a given language. The data of a given kind may be detected from the contents of the document.

[0026] In the method for storing a desired data, the listed retrieved data with a file name of the retrieved data are displayed.

[0027] In the method for storing a desired data, the listed image information and the size information of the image information are displayed.

[0028] In the method for storing a desired data, the display size of the listed image information can be changed.

[0029] In the apparatus for storing a desired data, the listed retrieved data and a file name of the retrieved data are displayed.

[0030] In the apparatus for storing a desired data, the listed image information and the size information of the image information are displayed.

[0031] In the apparatus for storing a desired data, the display size of the listed image information can be changed.

[0032] In the recording medium readable by a computer, the listed retrieved data and the file name of the retrieved data are displayed.

[0033] In the recording medium readable by a computer, the listed image information and the size information of the image information are displayed.

[0034] In the recording medium readable by a computer, the display size of the listed image information can be changed.

[0035] A method for displaying data designated in a file of which a display format, for example, location and sizes of characters, is designated such as a file written in HTML, is provided in accordance with the present invention, which comprises the step of: retrieving data of a given kind from the data designated in the file; and listing the retrieved data.

[0036] In the method for displaying data, the data of the given kind is image data.

[0037] In the method for displaying data, the listed retrieved data and a file name of the retrieved data are displayed.

[0038] In the method for displaying data, the listed image data and the size information of the image data are displayed.

[0039] In the method for displaying data, the display size of the listed image data can be changed.

[0040] In the method for displaying data, the listed image data is displayed with a given display size.

[0041] An apparatus for displaying data designated in a file of which a display format is designated, is provided in accordance with the present invention, which comprises: a retrieving unit that retrieves data of a given kind from the data designated in the file; and a display unit that lists the retrieved data.

[0042] In the apparatus for displaying data, the data of the given kind is image data.

[0043] In the apparatus for displaying data, the display unit displays the listed retrieved data and a file name of the retrieved data.

[0044] In the apparatus for displaying data, the display unit displays the listed image data and the size information of the image data.

[0045] In the apparatus for displaying data, the display unit displays the image data of which display size is changed.

[0046] In the apparatus for displaying data, the dis-

play unit displays the listed image data with a given display size.

[0047] A recording medium readable by a computer and having a program recorded thereon, provided in accordance with the present invention, of which program causes a computer to execute the steps of: retrieving data of a given kind from data designated in a file of which a display format is designated; and listing the retrieved data.

[0048] In the recording medium readable by a computer, the data of the given kind is image data.

[0049] In the recording medium readable by a computer, the listed retrieved data and a file name of the retrieved data are displayed.

[0050] In the recording medium readable by a computer, the listed image data and the size information of the image data are displayed.

[0051] In the recording medium readable by a computer, the display size of the listed image data can be changed.

[0052] In the recording medium readable by a computer, the listed image data is displayed with a given display size.

[0053] A method for selecting data designated in a file of which a display format is designated, is provided in accordance with the present invention, which comprises the step of: retrieving data of a given kind from the data designated in the file; listing the retrieved data; and selecting desired data from the listed data.

[0054] In the method for selecting data, the data of the given kind is image data.

[0055] In the method for selecting data, the listed retrieved data and a file name of the retrieved data are displayed.

[0056] In the method for selecting data, the listed image data and the size information of the image data are displayed.

[0057] In the method for selecting data, the display size of the listed image data can be changed.

[0058] In the method for displaying data, the listed image data is displayed with a given display size.

[0059] An apparatus for selecting data from data designated in a file of which a display format is designated, is provided in accordance with the present invention, which comprises: a retrieving unit that retrieves data of a given kind from the data designated in the file; a display unit that lists the retrieved data; and a selecting unit that selects desired data from the listed data.

[0060] In the apparatus for selecting data, the data of the given kind is image data.

[0061] In the apparatus for selecting data, the display unit displays the listed retrieved data and a file name of the retrieved data.

[0062] In the apparatus for selecting data, the display unit displays the listed image data and the size information of the image data.

[0063] In the apparatus for selecting data, the display unit displays the image data of which a display size is changed.

[0064] In the apparatus for selecting data, the display unit displays the listed image data with a given display size.

[0065] A recording medium readable by a computer and having a program recorded thereon is provided in accordance with the present invention, which program causes a computer to execute the steps of: retrieving data of a given kind from data designated in a file of which a display format is designated; listing the retrieved data; and selecting desired data from the listed data.

[0066] In the recording medium readable by a computer, the data of the given kind is image data.

[0067] In the recording medium readable by a computer, the listed retrieved data and a file name of the retrieved data are displayed.

[0068] In the recording medium readable by a computer, the listed image data and the size information of the image data are displayed.

[0069] In the recording medium readable by a computer, the display size of the listed image data can be changed.

[0070] In the recording medium readable by a computer, the listed image data is displayed with a given display size.

BRIEF DESCRIPTION OF THE DRAWINGS

[0071] The present invention will be more clearly understood from the description as set forth below with reference to the accompanying drawings, wherein:

Fig. 1 is a block diagram showing the outline configuration of an embodiment of a computer system in accordance with the present invention;

Fig. 2 is a diagram showing an initial screen for a home page produced by the computer system in accordance with the present invention;

Fig. 3 is a diagram showing a screen in which images contained in a home page are listed;

Fig. 4 is a flowchart describing storage of storing an image contained in a home page in accordance with the present invention; and

Fig. 5 is a diagram showing an example of a document describing a home page and written in HTML.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0072] The preferred embodiments of the present invention will be described below with reference to the accompanying drawings.

[0073] Referring to the appended drawings, an embodiment of the present invention will be described below.

[0074] Fig. 1 is a block diagram showing the outline configuration of an embodiment of a computer system in accordance with the present invention. The computer

system shown in Fig. 1 includes a CPU 1. The CPU 1 is connected to a ROM 3, a RAM 4 and an I/O interface over a bus 2. Stored in the ROM 3 are a program for controlling the whole system and a program for executing storage of storing an image contained in a home page in accordance with the present invention. In the RAM 4, data needed by the system and input/output data are stored temporarily. A CRT 6 for displaying character information and image information on the display screen thereof, a printer 7, and a floppy disk drive 8 are connected to the I/O interface 5 over respective cables. Also connected to the I/O interface 5 are a scanner 9 for reading the character information and image information, a keyboard 10, a touch panel 11, and a modem 12. The touch panel 11 is mounted on the display screen of the CRT 6 and designed to detect positional data of a position on the display screen touched by, for example, a finger. The modem 12 connects the computer system to an external computer over a communication network, for example, the Internet.

[0075] Referring to Fig. 1, processing to be carried out according to a program recorded on a recording medium in accordance with the present invention will be described below. The computer system of the present invention shown in Fig. 1 has a central processing unit (CPU) 1, and recording media, for example, a ROM 3 and RAM 4. The computer system is provided with a reader for reading a portable recording medium (not shown) such as a floppy disk, that is, a floppy disk drive 8. A CD-ROM reader may be substituted for the floppy disk drive 8. A program for causing a computer to execute steps to which the present invention is adapted is recorded on a portable recording medium such as a floppy disk by performing a given manipulation. The program is read by means of the reader and loaded into the RAM 4. Needless to say, an operator may write the program directly in the RAM 4 in the computer system by manipulating an input means such as a keyboard 10. Otherwise, the program may be stored in a recording medium included in a computer system (not shown) owned by another client, for example, a RAM (not shown). The program may then be loaded into the RAM 4 in the computer system via the modem 12 over a network (communication network). Thereafter, the program loaded into the RAM 4 may be executed by the CPU 1 in the computer system when needed.

[0076] Moreover, the program may be recorded in the ROM 3 in advance. The program may then be read from the ROM 3 and executed by the CPU 1.

[0077] Next, a method of storing an image contained in a home page in the computer system in accordance with the present invention will be described below.

[0078] Fig. 2 is a diagram showing an initial screen for a home page produced by the computer system in accordance with the present invention. Various menus are displayed in a menu box 21 in the lowermost part of a display screen 20. The menus include a Return menu, Advance menu, Reread menu, History menu, Bookmark menu, Retrieve menu, Store/Read menu, Print menu, Mail menu, and End menu in that order from the left. When Return is selected, control is passed to a screen of a page that has been displayed on a previous stage. When Advance is selected, control is passed to a screen of a page that had appeared when Return was selected. When Reread is selected, information of a home page currently being displayed is read from a remote server or local system and then displayed. When History is selected, home pages accessed after the computer system was activated are listed. A home page that must be seen again can be selected from the listing. When Bookmark is selected, home pages scheduled to be accessed when the computer system is activated next or thereafter can be registered and listed. When Retrieve is selected, control is passed to a screen for retrieval. When Store/Read is selected, control is passed to a screen shown in Fig. 3. It then becomes possible to manipulate the computer system so as to store a text or image contained in a home page currently being seen. When Print is selected, a screen currently being displayed is printed. When Mail is selected, control is passed to a screen in which the computer system is manipulated in order to transmit or receive electronic mail. When End is selected, Internet-related services, for example, services of providing home pages or distributing electronic mail are terminated. Control is then passed to the initial screen produced by the computer system.

[0079] Selecting any of these menus is achieved by touching any of the various menus displayed in the menu box 21 in the lowermost part of the screen 20 that is touch sensitive. Alternatively, a cursor may be moved by manipulating a keyboard and the Enter key may then be pressed.

[0080] A display area 22 for addresses of home pages is defined above the menu box 21. The address of a home page that must be seen can be keyed in directly in the screen 20. After keying in the address is completed, the Enter key is pressed. The home page will then appear in the screen 20.

[0081] In a display area 23 on the left-hand side of the screen 20 with respect to the center thereof, there is a zone 230 in which a message saying, "Welcome to Internet Browser!" appears. Titles of home pages such as Gourmet 231, Travel 232, and Sports 233 are displayed on the left-hand side below the zone 230. Titles of home pages such as Fashion 234, Comics and Animations 235, and Online Magazine 236 are displayed on the right-hand side below the zone 230. Images representing the titles are displayed by the left side of the titles. These images are linked to other servers over the Internet. By touching any of the images, a home page provided by a linked server is downloaded to the RAM in the computer system.

[0082] The titles of two home pages "Let's create home pages!" 241 and "Daily Necessities made of paper" 242, and images representing the titles are displayed in a display area 24 on the right-hand side of the

screen 20. When any of the images is touched by a finger, a home page entitled by "Let's create home pages! " or "Daily Necessities made of paper" is downloaded to the RAM.

[0083] Fig. 3 is a diagram showing a screen in which images contained in a home page are listed. A display area 31 for the address of a home page is defined in the lower part of a screen 30. The address of a home page relevant to the list of images displayed for image storage in the screen 30 is indicated in the display area 31.

[0084] Three buttons of Text Storage, Image Storage, and Return are displayed in a display area 32 in the left-hand part of the screen 30. The Text Storage button 321 in the display area 32 is a button used to display information of a text (not shown) in the display area 33. The Image Storage button 322 is a button used to display information of images in the display area 33. The Return button 323 is a button used to return control to the screen shown in Fig. 2. The Text Storage button 321 in Fig. 3 is enclosed in a square frame. When only the keyboard is used but the touch panel remains unused, as soon as a cursor is moved to the Text Storage button 321, the Text Storage button 321 is enclosed in the frame as shown in Fig. 3. When the cursor has been moved to the Image Storage button 322, the Image Storage button 322 is in turn enclosed in the frame.

[0085] Assume that the Image Storage button 322 has been selected. Part of the listing of image information of storable images contained in a home page will, as shown in Fig. 3, then be displayed in the display area 33 on the right-hand side of the screen 30 with respect to the center thereof. Moreover, when the screen is scrolled by manipulating the keyboard, the remaining part of the listing of image information appears. Images 331 to 334, file names relevant to the images, and sizes at which the images are displayed in the display area 33 are displayed in the form of a list.

[0086] "Image Storage" appears in a zone 330 defined in the upper part of the display area 33. When the Text button 321 in the display area 32 is selected, "Text Storage" will appear in the zone 330. As shown in Fig. 3, storable images contained in a home page are listed in the display area 33. For storing a image, any of the images 331 to 334 that are listed is touched by a finger. For storing information of a text, the Text Storage button 321 should be touched by a finger, and information of a text will appear in the display area 33. A message saying "Do you want to store it?" appears in the display area. If the message is clicked, the information of the text is stored.

[0087] Fig. 4 is a flowchart describing storage of storing an image contained in a home page in accordance with the present invention. The processing to be described below is carried out mainly by a program called a browser stored in the ROM in the computer system. To begin with, a menu for invoking a home page is selected from the menu box 21 shown in Fig. 2. Otherwise, the address of the home page is keyed in within the display area 22 and the Enter key is pressed. At step 41, the source file of the desired home page is downloaded to the RAM in the computer system responsively to the selection of the menu or the press of the Enter key. At step 42, the screen 20 is, as shown in Fig. 2, displayed based on the contents of the source file of the downloaded home page.

[0088] At step 43, Storage/Read in the menu box 21 shown in Fig. 2 is touched by a finger. Source files of storable images contained in the downloaded home page are retrieved from the source file of the downloaded home page. At step 44, image information of the images is, as shown in Fig. 3, listed in the screen according to the retrieved source files of the images.

[0089] At step 45, a desired image is selected from the listed image information. The selection is achieved by touching any of the images 331 to 334 in the listing of the storable images contained in the home page and displayed in the display area 33 in Fig. 3. At step 46, the selected image is stored on a recording medium such as a floppy disk. Moreover, in this embodiment of the present invention, the floppy disk may be of a normal type that offers a storage capacity of 1.2M bytes or 1.4M bytes. Otherwise, the floppy disk may be of a large-capacity type that offers a storage capacity of 120M bytes. Moreover, an image stored in the floppy disk bears the file name of the source file of the image contained in the source file of the home page.

[0090] Fig. 5 is a diagram showing an example of a document describing a home page and written in HTML. The step 43 and step 44 in the flowchart of Fig. 4 will be described in conjunction with Fig. 5. Fig. 5 shows a document of a source file describing a downloaded home page. The source file is a file bearing a file name specified last in a uniform resource locator (URL) indicating the address of a home page. The file is downloaded from a server providing the home page to the computer system. The structure of the URL will be briefed below by taking a practical example.

http://www.nasda.go.jp/Ranking/1997/Nov.html

[0091] The above URL is composed of a protocol http, a sub-domain name www, a domain name nasda.go.jp, directory names Ranking and 1997, and a file name Nov.html. Moreover, the domain name is composed of an organization name nasda, an attribute go, and a country name jp.

[0092] Source files of storable images contained in the home page are retrieved from the document of the source file describing the thus downloaded home page. For the retrieval (step 43), IMG SRC found in the description on the tenth line of the document shown in Fig. 5 reading "<IMG SRC="TYTLS.gif"WIDTH="375" HEIGHT="170"---> serves as a key (IMG tag). TYTLS. gif following = next to IMG SRC indicates the source file of a storable image contained in the home page. WIDTH="375"HEIGHT="170" is information indicating a size at which the image is displayed. "375" or "170" means the number of dots. The display size in a screen

varies depending on a resolution (dots per inch) offered by a computer system employed.

[0093] Image information of the images is listed in a screen according to the retrieved source files of the images (step 44). For example, the description on the nineteenth line of the document shown in Fig. 5 reading "<IMG SRC="GURUM.gif"WIDTH="200"HEIGHT="51"- > indicates the image information of the images 333 and 332 in the display area 33 shown in Fig. 3. A lengthwise dimension of 51 dots indicated in the display area 33 and a sideways dimension of 200 dots indicated therein correspond to the dot size described in the source file of the home page. However, the dot size of an image described in a source file of a home page does not always correspond to the dot size defined with the lengthwise dimension of 51 dots and the sideways dimension of 200 dots. A size in which an image is actually displayed is indicated in a screen for a home page. In this case, the image is reduced or enlarged to a size defined with the lengthwise dimension of 51 dots and the sideways dimension of 200 dots. In this embodiment of the present invention, a storage size for an image is defined with the lengthwise dimension of 51 dots and the sideways dimension of 200 dots. The storage size is not limited to this one. Alternatively, the storage size may be set to a size in which an image is actually displayed in a screen for a home page or may be set to any desired size.

[0094] For listing the retrieved source files of images, various display methods are conceivable. Like the embodiment of the persent invention shown in Fig. 3, source files of images retrieved from a source file of a home page may be listed in order of retrieval. Alternatively, the source files may be sorted in alphabetical order or katakana order or by frequency of being displayed in a home page, and then listed. For example, assume that a home page concerns a weather forecast. In this case, a frequency by which a mark indicating sunny weather appears is so high that image information of the sunny weather mark may be listed first.

[0095] The present invention has been described by taking an embodiment concerning home pages for instance. The present invention is not limited to this mode. Alternatively, given information composed of character information and image information and stored in a CD-ROM may be interpreted as mentioned above. Source files of storable images may be retrieved. Based on the retrieved source files, the image information may then be listed and displayed in a screen.

[0096] As described so far, according to the present invention, data (images) that must be stored and is contained in information (home page) displayed in a screen produced by a computer system are listed and then displayed in a screen. A manipulation needed to store data (images) is simplified, and the time required for the manipulation is therefore shortened.

[0097] According to the present invention, given information, for example, information composed of character information and image information amd stored in, for example, a CD-ROM can be listed and displayed in a screen. A manipulation needed to store information (images) is simplified, and the time required for the manipulation is therefore shortened.

[0098] It will be understood by those skilled in the art that the foregoing descriptions are preferred embodiments of the disclosed apparatus and that various changes and modifications may be made in the invention without departing from the spirit and scope thereof.

Claims

1. A method for storing desired data from displayed data in a screen, comprising the steps of:

   retrieving data of a given kind from the displayed data;
   listing the retrieved data; and
   storing selected data on a recording medium.

2. A method for storing desired data according to claim 1, wherein it further comprises a step of selecting the desired data from the listed data.

3. A method for storing desired data according to claim 1, wherein the displayed data is composed of character information and image information, and the data of a given kind is the image information.

4. A method for storing desired data according to claim 1, wherein the displayed data is displayed based on a document written in a given language, and the data of a given kind is detected from contents of the document.

5. A method for storing desired data according to claim 1, wherein the listing is displayed according to a given sort.

6. A method for storing desired data according to claim 1, wherein the displayed data is a remote home page, and the data of a given kind is retrieved from a document written to display the home page.

7. A method for storing desired data according to claim 1, wherein the displayed data is recorded on a local recording medium, and the data of a given kind is retrieved from the data recorded on said recording medium.

8. An apparatus for storing a desired data from displayed data in a screen, comprising:

   a retrieving unit that retrieves data of a given kind from the displayed data;
   a listing unit that lists the retrieved data; and
   a storing unit that stores selected data on a re-

cording medium.

9. An apparatus for storing desired data according to claim 8, wherein it further comprises a selecting unit that selects the desired data from the listed data.

10. An apparatus for storing desired data according to claim 8, wherein the displayed data is composed of character information and image information, and the data of a given kind is the image information.

11. An apparatus for storing desired data according to claim 8, wherein the displayed data is displayed based on a document written in a given language, and the data of a given kind is detected from contents of the document.

12. An apparatus for storing desired data according to claim 8, wherein the listing is displayed according to a given sort.

13. An apparatus for storing a desired data according to claim 8, wherein the displayed data is a remote home page, and the data of a given kind is retrieved from a document written to display the home page.

14. An apparatus for storing a desired data according to claim 8, wherein the displayed data is recorded on a recording medium, and the data of a given kind is retrieved from the data recorded on said recording medium.

15. A recording medium readable by a computer and having a program recorded thereon, wherein said program causes a computer to execute the steps of:

retrieving data of a given kind from data displayed in a screen;
listing the retrieved data; and
storing selected data on said recording medium.

16. A recording medium readable by a computer according to claim 15, wherein said program causes the computer to execute another step of selecting the desired data from the listed data.

17. A recording medium readable by a computer according to claim 15, wherein the displayed data is composed of character information and image information, and the data of a given kind is the image information.

18. A recording medium readable by a computer according to claim 15, wherein the displayed data is displayed based on a document written in a given language, and the data of a given kind is detected from contents of the document.

19. A method for storing a desired data according to claim 1, wherein the listed retrieved data and a file name of the retrieved data are displayed.

20. A method for storing a desired data according to claim 3, wherein the listed image information and the size information of the image information are displayed.

21. A method for storing a desired data according to claim 20, wherein the display size of the listed image information can be changed.

22. An apparatus for storing a desired data according to claim 8, wherein the listed retrieved data and a file name of the retrieved data are displayed.

23. An apparatus for storing a desired data according to claim 10, wherein the listed image information and the size information of the image information are displayed.

24. An apparatus for storing a desired data according to claim 23, wherein the display size of the listed image information can be changed.

25. A recording medium readable by a computer according to claim 15, wherein the listed retrieved data and the file name of the retrieved data are displayed.

26. A recording medium readable by a computer according to claim 17, wherein the listed image information and the size information of the image information are displayed.

27. A recording medium readable by a computer according to claim 26, wherein the display size of the listed image information can be changed.

28. A method for displaying data designated in a file of which a display format is designated, comprising the step of:

retrieving data of a given kind from the data designated in the file; and
listing the retrieved data.

29. A method for displaying data according to claim 28, wherein the data of the given kind is image data.

30. A method for displaying data according to claim 28, wherein the listed retrieved data and a file name of the retrieved data are displayed.

31. A method for displaying data according to claim 29, wherein the listed image data and the size information of the image data are displayed.

32. A method for displaying data according to claim 29 or 31, wherein the display size of the listed image data can be changed.

33. A method for displaying data according to claim 32, wherein the listed image data is displayed with a given display size.

34. An apparatus for displaying data designated in a file of which a display format is designated, comprising:

a retrieving unit that retrieves data of a given kind from the data designated in the file; and
a display unit that lists the retrieved data.

35. An apparatus for displaying data according to claim 34, wherein the data of the given kind is image data.

36. An apparatus for displaying data according to claim 34, wherein the display unit displays the listed retrieved data and a file name of the retrieved data.

37. An apparatus for displaying data according to claim 35, wherein the display unit displays the listed image data and the size information of the image data.

38. An apparatus for displaying data according to claim 35 or 37, wherein the display unit displays the image data of which display size is changed.

39. An apparatus for displaying data according to claim 38, wherein the display unit displays the listed image data with a given display size.

40. A recording medium readable by a computer and having a program recorded thereon, wherein said program causes a computer to execute the steps of:

retrieving data of a given kind from data designated in a file of which a display format is designated; and
listing the retrieved data.

41. A recording medium readable by a computer according to claim 40, wherein the data of the given kind is image data.

42. A recording medium readable by a computer according to claim 40, wherein the listed retrieved data and a file name of the retrieved data are displayed.

43. A recording medium readable by a computer according to claim 41, wherein the listed image data and the size information of the image data are displayed.

44. A recording medium readable by a computer according to claim 41 or 43, wherein the display size of the listed image data can be changed.

45. A recording medium readable by a computer according to claim 44, wherein the listed image data is displayed with a given display size.

46. A method for selecting data designated in a file of which a display format is designated, comprising the step of:

retrieving data of a given kind from the data designated in the file;
listing the retrieved data; and
selecting desired data from the listed data.

47. A method for selecting data according to claim 46, wherein the data of the given kind is image data.

48. A method for selecting data according to claim 46, wherein the listed retrieved data and a file name of the retrieved data are displayed.

49. A method for selecting data according to claim 47, wherein the listed image data and the size information of the image data are displayed.

50. A method for selecting data according to claim 47 or 49, wherein the display size of the listed image data can be changed.

51. A method for displaying data according to claim 50, wherein the listed image data is displayed with a given display size.

52. An apparatus for selecting data from data designated in a file of which a display format is designated, comprising:

a retrieving unit that retrieves data of a given kind from the data designated in the file;
a display unit that lists the retrieved data; and
a selecting unit that selects desired data from the listed data.

53. An apparatus for selecting data according to claim 52, wherein the data of the given kind is image data.

54. An apparatus for selecting data according to claim 52, wherein the display unit displays the listed retrieved data and a file name of the retrieved data.

55. An apparatus for selecting data according to claim 53, wherein the display unit displays the listed image data and the size information of the image data.

56. An apparatus for selecting data according to claim 53 or 55, wherein the display unit displays the image data of which a display size is changed.

57. An apparatus for selecting data according to claim 56, wherein the display unit displays the listed image data with a given display size.

58. A recording medium readable by a computer and having a program recorded thereon, wherein said program causes a computer to execute the steps of:

retrieving data of a given kind from data designated in a file of which a display format is designated;
listing the retrieved data; and
selecting desired data from the listed data.

59. A recording medium readable by a computer according to claim 58, wherein the data of the given kind is image data.

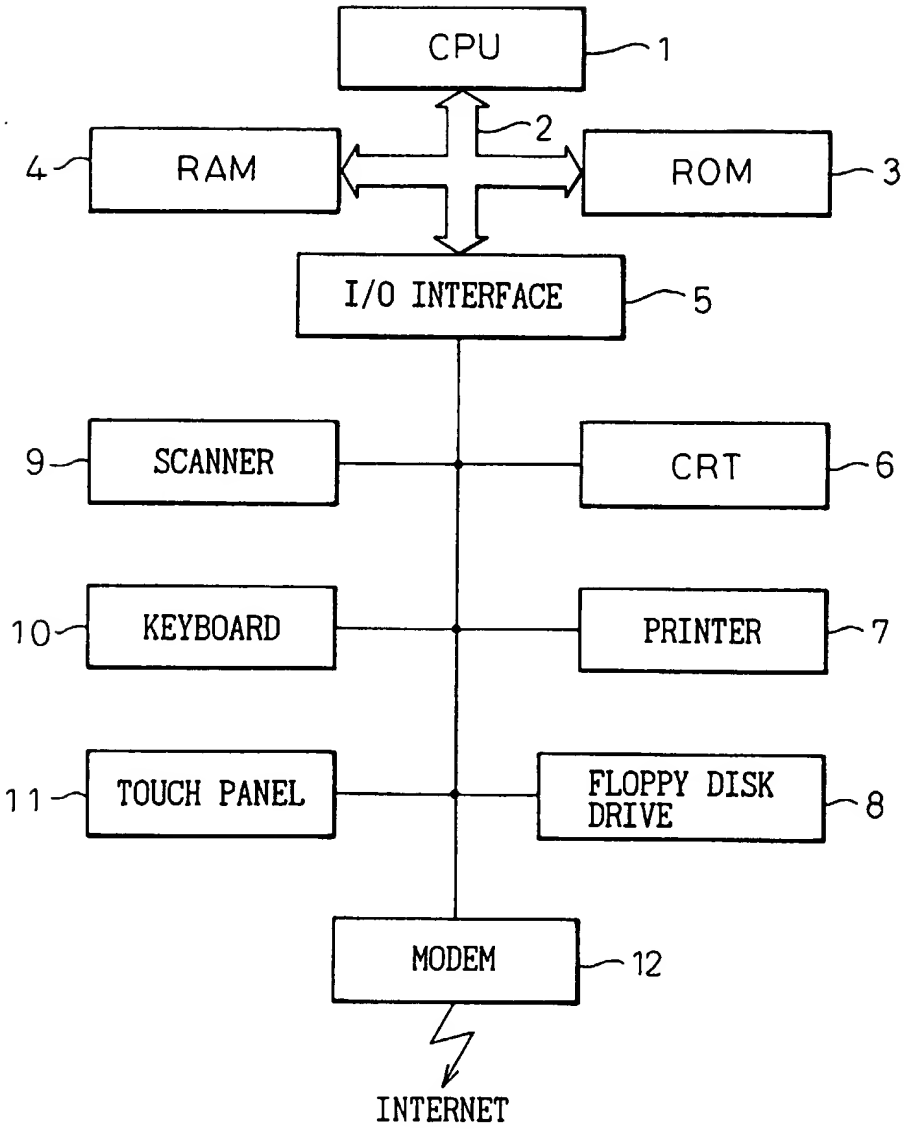
60. A recording medium readable by a computer according to claim 58, wherein the listed retrieved data and a file name of the retrieved data are displayed.

61. A recording medium readable by a computer according to claim 59, wherein the listed image data and the size information of the image data are displayed.

62. A recording medium readable by a computer according to claim 59 or 61, wherein the display size of the listed image data can be changed.

63. A recording medium readable by a computer according to claim 62, wherein the listed image data is displayed with a given display size.

Fig. 1


CPU
1
2
4
RAM
ROM
3
I/O INTERFACE
5
9
SCANNER
CRT
6
10
KEYBOARD
PRINTER
7
11
TOUCH PANEL
FLOPPY DISK DRIVE
8
MODEM
12
INTERNET

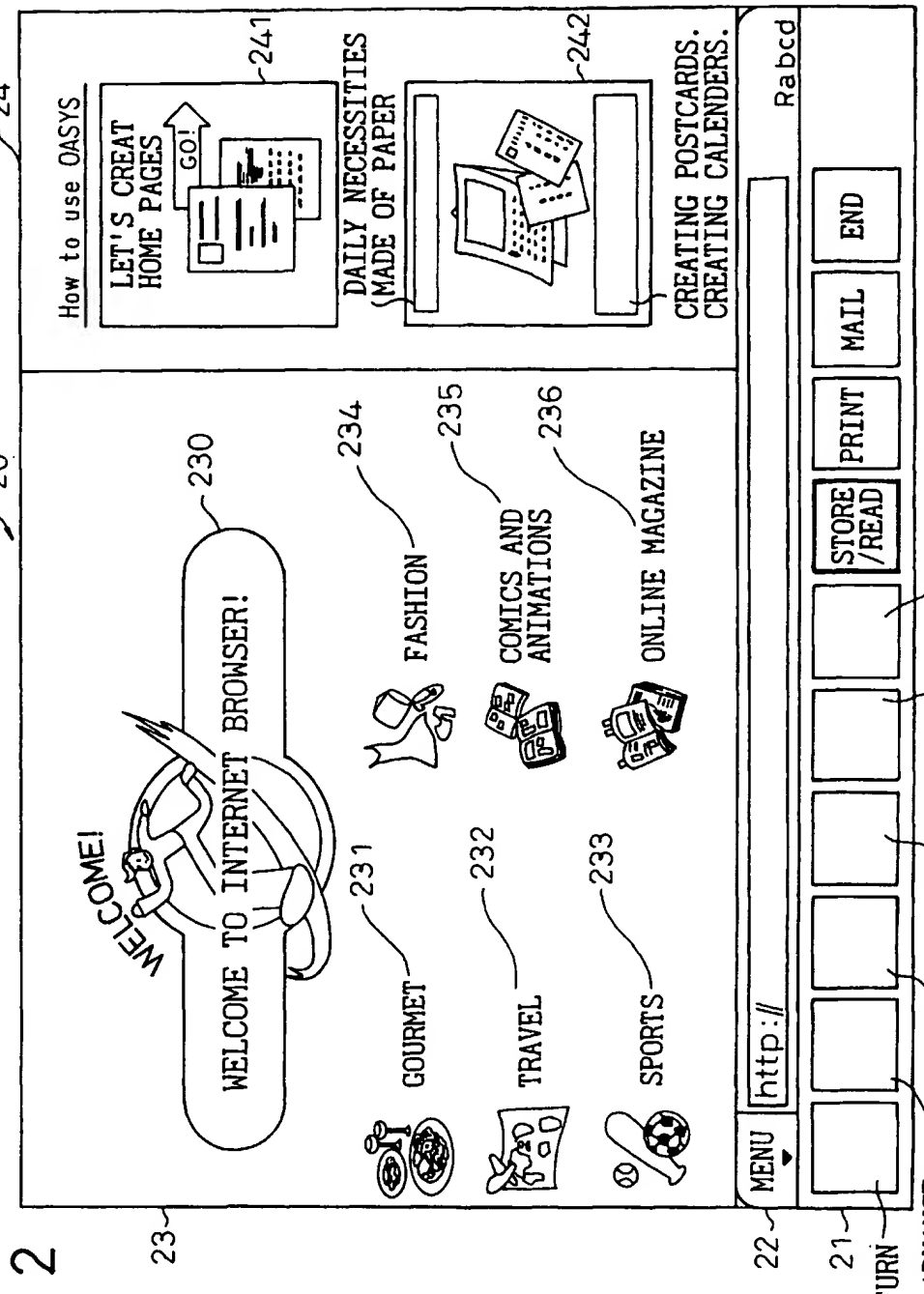

20
24
How to use OASYS
LET'S CREAT HOME PAGES
GO!
241
DAILY NECESSITIES (MADE OF PAPER
242
CREATING POSTCARDS. CREATING CALENDERS.
WELCOME!
WELCOME TO INTERNET BROWSER!
230
231
GOURMET
232
TRAVEL
233
SPORTS
234
FASHION
235
COMICS AND ANIMATIONS
236
ONLINE MAGAZINE
23
MENU
http://
Rabcd
STORE /READ
PRINT
MAIL
END
22
21
RETURN
ADVANCE
REREAD
HISTORY
BOOKMARK
RETRIEVE

Fig. 2

Fig.3

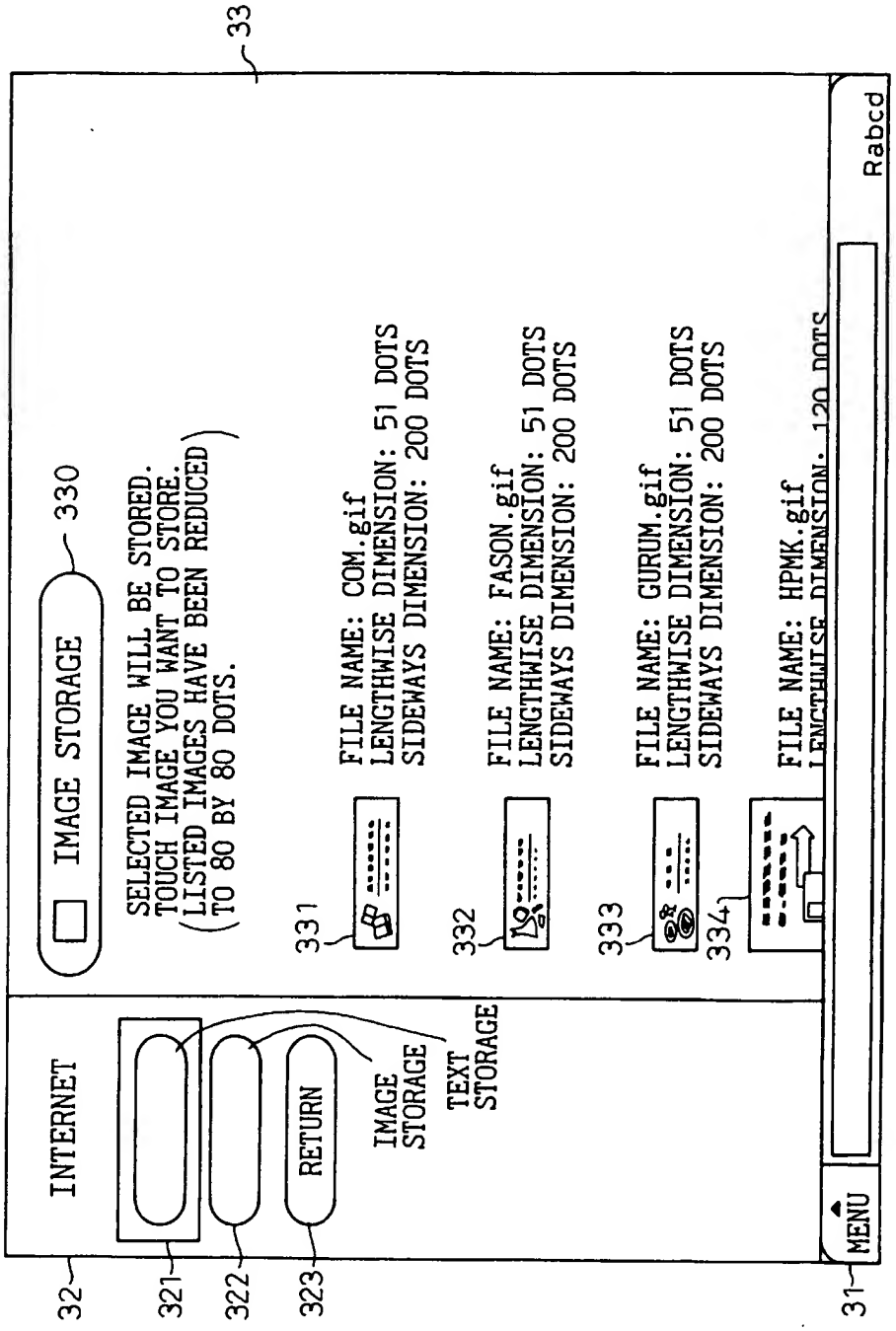

33
IMAGE STORAGE
330
SELECTED IMAGE WILL BE STORED.
TOUCH IMAGE YOU WANT TO STORE.
(LISTED IMAGES HAVE BEEN REDUCED
TO 80 BY 80 DOTS.)
331
FILE NAME: COM.gif
LENGTHWISE DIMENSION: 51 DOTS
SIDEWAYS DIMENSION: 200 DOTS
332
FILE NAME: FASON.gif
LENGTHWISE DIMENSION: 51 DOTS
SIDEWAYS DIMENSION: 200 DOTS
333
FILE NAME: GURUM.gif
LENGTHWISE DIMENSION: 51 DOTS
SIDEWAYS DIMENSION: 200 DOTS
334
FILE NAME: HPMK.gif
LENGTHWISE DIMENSION: 120 DOTS
INTERNET
IMAGE STORAGE
TEXT STORAGE
RETURN
MENU
Rabcd
32
321
322
323
31

Fig. 4

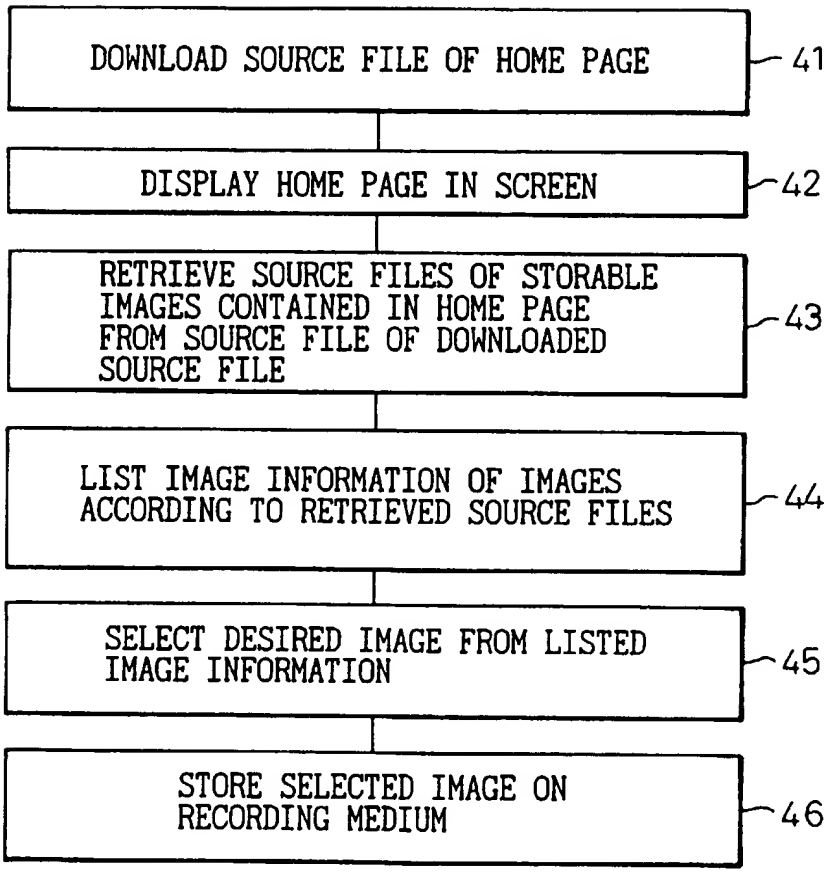

DOWNLOAD SOURCE FILE OF HOME PAGE
41
DISPLAY HOME PAGE IN SCREEN
42
RETRIEVE SOURCE FILES OF STORABLE IMAGES CONTAINED IN HOME PAGE FROM SOURCE FILE OF DOWNLOADED SOURCE FILE
43
LIST IMAGE INFORMATION OF IMAGES ACCORDING TO RETRIEVED SOURCE FILES
44
SELECT DESIRED IMAGE FROM LISTED IMAGE INFORMATION
45
STORE SELECTED IMAGE ON RECORDING MEDIUM
46

Fig.5

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